



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,068	02/03/2004	Bruce Wilford	CIS0016C1US	2239
33031 7590 03/17/2008 CAMPBELL STEPHENSON LLP 11401 CENTURY OAKS TERRACE BLDG. H, SUITE 250 AUSTIN, TX 78758				
EXAMINER BOAKYE, ALEXANDER O				
ART UNIT 2616		PAPER NUMBER		
MAIL DATE 03/17/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/771,068

Applicant(s)

WILFORD ET AL.

Examiner

ALEXANDER BOAKYE

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/08)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 20-26 are objected to because of the following informalities:

In claim 20 (line 1), "machine-readable medium" is not an acceptable language in computer-processing related claims. The examiner suggests that "machine-readable medium having a plurality of instructions executable by a machine therein, wherein the plurality of instructions when executed cause the machine" should be changed to computer "readable medium having a plurality of instructions executed by a computer embodied therein, wherein the plurality of instructions when executed cause the" computer. Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 of U.S. Patent No. 6,687,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application recite first buffer, second buffer, an inbound queue manager and the second buffer being substantially larger than the first buffer with the only difference between claims 1, 2 of the instant application and claim 1 of the patent being that claim 1 of the patent recites a lookup circuit and a packet modifier circuit while claims 1, 2 of the instant application do not recite such limitation. Also claim 1 of the patent is broader than claims 1 and 2 of the instant application. Therefore, it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using larger buffer with motivation being that it provides reduction of packet overflow.

Claims 1, 2, 5, 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 of U.S. Patent No. 6,687,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application recite a lookup circuit coupled to the inbound receiver and configured to compare the header to data structure and to determining routing information; and a first packet modifier circuit configured to modify the header according to at least the routing information to form a modified packet. With the only difference between claim 1 of the patent and claims 1, 2, 5, 6 of the instant application

being that claim 1 of the patent recites inbound receiver while the instant application discloses a network interface element. Therefore, it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using interface element with motivation being that it provides capability for the system to be able to receive signals.

Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 4 of U.S. Patent No. 6,687,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application recite that the data structure comprises an M-way branching tree structure.

Claim 9 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2 of U.S. Patent No. 6,687,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application recite a second packet modifier circuit configured to modify the outbound packet; and an outbound queue manager coupled to the second packet modifier circuit and configured to store the outbound packet using a fourth buffer, wherein the fourth buffer is substantially larger than the third buffer.

Claims 10,11,12,14,15 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 14 of U.S. Patent No. 6,687,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application recite second buffer is substantially larger than the first buffer; comparing the header to a data structure ; determining

routing information; and modifying the header according to at least the routing information to form a modified packet substantially at the line rate of the network interface with the only difference between claims 10, 11, 12, 14, 15 of the instant application and claim 14 of the patent being that claim 14 of the patent recites routing of packets in a communication device while the instant application discloses determining a packet priority. Therefore, it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using larger buffer with motivation being that it provides reduction of packet overflow.

Claim 19 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 15 of U.S. Patent No. 6,687,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application recite storing an outbound packet using a third buffer of the network interface; modifying the outbound packet substantially at the line rate of the network interface; and storing the outbound packet using a fourth buffer of the network interface in response to the modifying, wherein the fourth buffer is substantially larger than the third buffer.

Claim 20 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 15 of U.S. Patent No. 6,687,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application recite

Claims 20, 21, 22, 24, 25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 25 of U.S. Patent

No. 6,687,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application recite second buffer is substantially larger than the first buffer; comparing the header to a data structure ; determining routing information; and modifying the header according to at least the routing information to form a modified packet substantially at the line rate of the network interface with the only difference between claims 20-25 of the instant application and claim 25 of the patent being that claim 25 of the patent recites a system for interfacing with a communications network while the instant application discloses determining a packet priority. Therefore, it would have been obvious to one of ordinary skill in the art to implement the invention of the instant application using larger buffer with motivation being that it provides reduction of packet overflow.

Claims 27-33 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 40 of U.S. Patent No. 6,687,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application recite means for comparing the header to a data structure; means for determining routing information; and means for modifying the header according to at least the routing information to form a modified packet substantially at the line rate of the network interface; the second buffer being substantially larger than the first buffer ; fourth buffer being substantially larger than the third buffer with the only difference between claim 40 of the patent and the instant application being that claim 40 of the patent recites lookup circuit while claims 27-32 disclose determining packet priority. Therefore it would have been obvious to one of

ordinary skill in the art to implement the instant invention using larger buffer with motivation being that it reduces packet overflow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 10-11, 20-21, 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Takada (US Patent # 4,878,218).

Regarding claim 1, Takada teaches an apparatus (Fig. 2) comprising: a network interface element (adapter) configured to receive an inbound packet at a line rate (column 2, lines 5-7); and a control element (30-1/30-m) coupled to the network interface element (adapter) and configured to determine a packet priority associated with the inbound packet substantially at the line card (column 2, lines 1-4).

Regarding claim 10, Takada teaches a method comprising: storing an inbound packet using a network interface (column 2, lines 1-7); and determining a packet priority associated with the inbound packet substantially at a line rate of the network interface (column 2, lines 1-4).

Regarding claim 11, Takada teaches that the storing comprises: storing an inbound packet using a first buffer of the network interface (column 2, lines 1-7).

Claim 20 is met as previously discussed with respect to claim 10.

Claim 21 is met as previously discussed with respect to claim 11.

Claim 27 is met as previously discussed with respect to claim 1.

Regarding claim 28, Takada teaches that the means for storing comprises:
means for storing an inbound packet using a first buffer of the network interface
(column 2, lines 1-7).

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The Fax number is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or PUBLIC PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Any inquiry of a general nature or relating to the

Art Unit: 2616

status of this application or proceeding should be directed to the **Electronic Business Center** (EBC) numbers at 866-217- 9197 and 703-305-3028.

/A. B./

Examiner, Art Unit 2616

03/11/2008

/Chi H Pham/

Supervisory Patent Examiner, Art Unit 2616

3/13/08